



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

[Signature]

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/511,602	11/03/2004	Naoki Sugano	260582US2X PCT	5563
22850	7590	10/05/2005		EXAMINER
OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			GLASS, ERICK DAVID	
			ART UNIT	PAPER NUMBER
			2837	

DATE MAILED: 10/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/511,602	SUGANO ET AL.	
	Examiner	Art Unit	
	Erick Glass	2837	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on _____.
 2a) This action is **FINAL**. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-18 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) Claim(s) 1-8 is/are allowed.
 6) Claim(s) 9-18 is/are rejected.
 7) Claim(s) _____ is/are objected to.
 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on 03 November 2004 is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>11/3/2004</u> . | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

Claims 9-18 are rejected under 35 U.S.C. 102(b) as being anticipated by Gilmore (US 6,424,799).

With respect to claim 9, Gilmore discloses an electric motor (fig. 1, 16) for rotatably driving a rotating body (fig. 1, 22); operation means (fig. 1, 24) for issuing a rotation command for rotation of the rotating body; control means (fig. 1, 12) for controlling said electric motor based on the rotation command issued from said operation means, and rotating speed detecting means (fig. 2, 36) for detecting a rotating speed of the rotating body, said control means performing speed control (column 4, lines 20-26) according to an operation amount of said operation means, wherein, when performing a pressing work (column 1, 62-65) including pressing a part of said rotating body against an object of work, said control means performs torque control (column 4, lines 20-26) according to the operation amount of said operation means instead of said speed control.

With respect to claim 10, Gilmore discloses an electric motor (fig. 1, 16) for rotatably driving a rotating body (fig. 1, 22); operation means (fig. 1, 24) for issuing a rotation command for rotation of the rotating body; control means (fig. 1, 12) for controlling said electric motor based on the rotation command issued from said operation means; and a rotating speed detecting means (fig. 2, 36) for detecting a

rotating speed of the rotating body, said control means performing speed control (column 4, lines 20-26) according to an operation amount of said operation means, wherein, when performing a pressing work (column 1, 62-65) including pressing a part of said rotating body against an object of work, said control means performs control to impose a torque limitation (column 4, lines 27-37) according to the operation amount of the operation means on said speed control.

With respect to claim 11, Gilmore discloses wherein, in a condition the operation amount of said operation means is larger than an operation amount thereof at a starting position of the rotation and an actually measured value of the rotating speed is zero, or is equal to or less than a set value near zero, said control means judges (column 4, lines 20-26) the condition the pressing work.

With respect to claim 12, Gilmore discloses an electric motor (fig. 1, 16) for rotatably driving a rotating body (fig. 1, 22); operation means (fig. 1, 24) for issuing a rotation command for rotation of the rotating body; control means (fig. 1, 12) for controlling said electric motor based on the rotation command issued from said operation means; and a rotating speed detecting means (fig. 2, 36) for detecting a rotating speed of the rotating body, said control means performing speed control (column 4, lines 20-26) according to an operation amount of said operation means, wherein, when an actually measured value of the rotating speed is smaller than a target value corresponding to the operation amount of said operation means, said control means performs control to impose a torque limitation (column 4, lines 27-37) on said speed control.

With respect to claim 13, Gilmore discloses wherein, under condition that the operation means is located at the starting position of the rotation, a target torque (column 2, lines 40-49) is set to be above zero.

With respect to claim 14, Gilmore discloses wherein, in a condition the operation amount of said operation means is larger than an operation amount thereof at a starting position of the rotation and an actually measured value of the rotating speed is zero, or is equal to or less than a set value near zero, said control means judges (column 4, lines 20-26) the condition the pressing work.

With respect to claim 15, Gilmore discloses wherein, under condition that the operation means is located at the starting position of the rotation, a target torque (column 2, lines 40-49) is set to be above zero.

With respect to claim 16, Gilmore discloses wherein, under condition that the operation means is located at the starting position of the rotation, a target torque (column 2, lines 40-49) is set to be above zero.

With respect to claim 17, Gilmore discloses wherein, under condition that the operation means is located at the starting position of the rotation, a target torque (column 2, lines 40-49) is set to be above zero.

With respect to claim 18, Gilmore discloses wherein, under condition that the operation means is located at the starting position of the rotation, a target torque (column 2, lines 40-49) is set to be above zero.

Allowable Subject Matter

Claims 1-8 are allowed. Claim 1 is allowable because an electric motor for rotatably driving a rotating body; operation means for issuing a rotation command for rotation of the rotating body; control means for controlling said electric motor based on the rotation command issued from said operation means; a rotating speed detecting means for detecting a rotating speed of the rotating body; and a mechanical brake for generating mechanical braking force, wherein said control means has a neutral range set by adding a predetermined width to an absolute neutral point serving as a basic point, the absolute neutral point corresponding to an operation amount of said operation means of zero, and in said neutral range, a mechanical brake zone is set on the absolute neutral point side, while a position holding control zone is set on a side opposite to said neutral point side, and wherein said control means is adapted to cause said mechanical brake to work in the mechanical brake zone of said neutral range, to perform position holding control in said position holding control zone, thereby stopping and holding said rotating body, and to perform speed control according to the operation amount of said operation means outside the neutral range. Claim 5 is allowable because an electric motor for rotatably driving a rotating body; operation means for issuing a rotation command for rotation of the rotating body; control means for controlling said electric motor based on the rotation command issued from said operation means; and a rotating speed detecting means for detecting a rotating speed of the rotating body, said control means performing speed control according to an operation amount of said operation means and imposing a limitation on a maximum value of accelerating torque according to said operation amount, wherein, when said

Art Unit: 2837

operation means is positioned within a preset neutral range, said control means is adapted to perform position holding control of said rotating body, to store torque generated in said electric motor by the position holding control as on-the-spot holding torque, and to set, in accelerating the rotation, the higher of said on-the-spot holding torque stored and said accelerating torque produced according to the operation amount of said operation means, as electric motor torque for acceleration.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Erick Glass whose telephone number is 571-272-8395. The examiner can normally be reached on 8-5 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Martin can be reached on 571-272-2107. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



DAVID MARTIN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800

EG